



UNITED STATES PATENT AND TRADEMARK OFFICE

cen
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,406	10/26/1999	JAMES M. BROWN	QCPA9900029	5890

23696 7590 04/24/2007
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

WILSON, ROBERT W

ART UNIT	PAPER NUMBER
----------	--------------

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/24/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/24/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kscanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary

Application No.

09/429,406

Applicant(s)

BROWN ET AL.

Examiner

Robert W. Wilson

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,5 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-5 & 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 13 is directed to software on a computer readable medium. Software is not patentable because it is not a method, process, composition of matter, or article of manufacture. Computer instructions encoded on a computer readable medium that are executable by a processor that define a tangible outcome or perform a physical transformation are patentable. In order to be statutory: A computer readable medium stores instructions which are executable on a computer said instructions perform the following:

Define a minimum segment ...

Define a maximum

Generate a first ...

Generate a second

Claim Objections

2. Claims 4-5 & 12-17 objected to because of the following informalities:

Referring to claim 4, the examiner objects to the usage of "maximum segment" and "the first segment size" is different from "the second segment size" because they have antecedent basis. The examiner recommends "defined maximum segment size", "first segment size of time sensitive information", and "second segment size of time sensitive information". Appropriate correction is required.

Referring to claim 12, 13, 14, & 17; the examiner objects to the usage of "the first segment size" is different from "the second segment size" because they have antecedent basis. The examiner recommends "defined maximum segment size", "first segment size of time sensitive information", and "second segment size of time sensitive information". Appropriate correction is required.

Referring to claim 17, the examiner objects to the usage of "adapted to" because it is interpreted as optional or intended use. Please clarify if this is intended use. Appropriate correction is required

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 & 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (U.S. Patent No.: 6,700,902).

Referring to claim 4, Meyer teaches: An apparatus (transmitter/receiver 20 per Figure 4 or transmitter) for generating at least one segment of time-sensitive information (string of data or 65A per Figure 5) comprising:

a queue for storing data frames, said data frames representing time-sensitive information (24 per Figure 4 is capable of storing string of data or data frames representing time-sensitive information per Figure 5) and

a first processor for generating a first segment of time-sensitive information if a sufficient quantity of said time-sensitive information is available for transmission, said first segment having a segment size between a defined minimum segment size and a defined maximum segment size (23 per Figure 4 or first processor generates a first packet containing string of data or time sensitive information which is between the minimum allowable packet size (defined minimum) and maximum allowable packet size (defined maximum) which is a packet which is dynamically being adjusted to the maximum operational size per col. 9 line 57 to col. 13 line 11)

and generating a second segment of time sensitive information having a segment size less than or equal to said maximum segment size upon receive of an acknowledgement message where in the first segment size is different from the second segment size (The reference teaches that upon receipt of the ACK the generated second segment size of the packet stays the same as the previously sent maximum operational size packet sent per col. 9 line 57 to col. 13 line 11)

Meyer does not expressly call for: sending a second segment of a different size upon acknowledgement.

Meyers teaches: dynamically adjusting the size for sending a maximum operational size packet based upon changing BER per col. 11 lines 56 to 67

Art Unit: 2616

It would have been obvious to one of ordinary skill in the art at the time of the invention to change the size of the maximum operational packet which would be to make the second segment size different in order to adjust the size of the segment dynamically based upon changing BER.

In addition Meyers teaches:

Regarding claim 15, wherein the apparatus is implemented in a base station (col. 8 lines 40)

Referring to claim 12, Meyer teaches: A method for generating at least one segment of time-sensitive information (Figure 9 shows the method of generating (130 per Figure 9) time sensitive information (string of data or 65A per Figure 5) comprising

defining a minimum segment size for information to be transmitted (the minimum allowable packet or minimum segment size per col. 9 line 57-col. 10 line 35);

defining a maximum segment size for information to be transmitted, said maximum segment size being greater than said minimum segment size (The maximum allowable packet size or maximum segment size per col. 9 line 57-col. 10 line 35)

generating a first segment of time-sensitive information if a sufficient quantity of said time-sensitive information is available for transmission, said first segment having a segment size between said minimum segment size and said maximum segment size (A first packet is created from the string of data or time-sensitive information per Figure 5 the first packet size is between the minimum allowable and maximum allowable packet size per col. 9 line 57-col. 10 line 35);

and generating a second segment of time sensitive information having a segment size less than or equal to said maximum segment size upon the receipt of an acknowledgment message from said receiver wherein the first segment size is different from the second segment size (A second packet size or second segment is generated from the string of data per Figure 5 which equal to the maximum operational packet size previously sent upon an acknowledgment message from the transmitter/receiver or 20 per col. 9 line 57-col. 10 line 35 based upon ACK message from receiver per 110, 115, 120, 125, 130, 133, 135, 138, & 140 per Figure 8 & per col. 9 line 57 to col. 13 line 11).

Meyer does not expressly call for: sending a second segment of a different size upon acknowledgement.

Meyers teaches: dynamically adjusting the size for sending a maximum operational size packet based upon changing BER per col. 11 lines 56 to 67

Art Unit: 2616

It would have been obvious to one of ordinary skill in the art at the time of the invention to change the size of the maximum operational packet which would be to make the second segment size different in order to adjust the size of the segment dynamically based upon changing BER.

Referring to claim 13, it is within the level of one skilled in the art at the time of the invention to implement the method claim of claim 12 in program instructions which are executable on a processor. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the instructions on a computer readable medium in order for the instructions to be executable on a processor.

Referring to claim 14, Meyer teaches: An apparatus (transmitter/receiver 20 per Figure 4 or transmitter) for generating at least one time-sensitive information (string of data or 65A per Figure 5) comprising:

means for defining a minimum segment size for information to be transmitted (23 per Figure 4 is capable of being the means for defining a minimum packet size or minimum segment size per col. 9 line 57-col. 10 line 35);

means for defining a maximum segment size for information to be transmitted (23 per Figure 4 is capable of being the means for defining maximum packet size or segment size to be transmitted per Figure 8); said maximum segment size being greater than said minimum segment size (The packet size or maximum segment size is between a minimum and maximum packet size per col. 9 line 57-col. 10 line 35)

means for generating a first segment of time-sensitive information if a sufficient quantity of said time-sensitive information is available for transmission (23 per Figure 4 is capable of being the means for generating a first packet containing string of data or time sensitive information if the size of the segment is greater than the minimum packet size per col. 9 line 57-col. 10 line 35), said first segment having a segment size between said minimum segment size and said maximum segment size (The size of the packet or segment size is between a minimum and maximum packet size per col. 9 line 57-col. 10 line 35);

means for generating a second segment of time sensitive information having a segment size less than or equal to said maximum segment size upon the receipt of an acknowledgment message from said receiver wherein the first segment size is different from the second segment size (23 per Figure 4 or means for generating a second packet size or second segment is generated from the string of data per Figure 5 which is equal to the maximum operational packet size which was previously sent upon an acknowledgment message from the transmitter/receiver or 20 per col. 9 line 57-col. 10 line 35 based upon ACK message from receiver per 110, 115, 120, 125, 130, 133, 135, 138, & 140 per Figure 8 & per col. 9 line 57 to col. 13 line 11).

Art Unit: 2616

Meyer does not expressly call for: sending a second segment of a different size upon acknowledgement.

Meyers teaches: dynamically adjusting the size for sending a maximum operational size packet based upon changing BER per col. 11 lines 56 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to change the size of the maximum operational packet which would be to make the second segment size different in order to adjust the size of the segment dynamically based upon changing BER.

In addition Meyers teaches:

Regarding claim 16, wherein the apparatus is implemented in a base station (col. 8 lines 40)

Referring to claim 17, Meyer teaches: An processor (transmitter/receiver 20 per Figure 4 or transmitter) adapted to generating at least one time-sensitive information (string of data or 65A per Figure 5) comprising:

means for defining a minimum segment size for information to be transmitted (23 per Figure 4 is capable of being the means for defining a minimum packet size or minimum segment size per col. 9 line 57-col. 10 line 35);

means for defining a maximum segment size for information to be transmitted (23 per Figure 4 is capable of being the means for defining maximum packet size or segment size to be transmitted per Figure 8); said maximum segment size being greater than said minimum segment size (The packet size or maximum segment size is between a minimum and maximum packet size per col. 9 line 57-col. 10 line 35)

means for generating a first segment of time-sensitive information if a sufficient quantity of said time-sensitive information is available for transmission (23 per Figure 4 is capable of being the means for generating a first packet containing string of data or time sensitive information if the size of the segment is greater than the minimum packet size per col. 9 line 57-col. 10 line 35), said first segment having a segment size between said minimum segment size and said maximum segment size (The size of the packet or segment size is between a minimum and maximum packet size per col. 9 line 57-col. 10 line 35);

means for generating a second segment of time sensitive information having a segment size less than or equal to said maximum segment size upon the receipt of an acknowledgment message from said receiver wherein the first segment size is different from the second segment size (23 per Figure 4 or means for generating a second packet size or second segment is generated from the string of data per Figure 5 which is equal to the maximum operational packet size which was previously sent upon an

Art Unit: 2616

acknowledgment message from the transmitter/receiver or 20 per col. 9 line 57-col. 10 line 35 based upon ACK message from receiver per 110, 115, 120, 125, 130, 133, 135, 138, & 140 per Figure 8 & per col. 9 line 57 to col. 13 line 11).

Meyer does not expressly call for: sending a second segment of a different size upon acknowledgement.

Meyers teaches: dynamically adjusting the size for sending a maximum operational size packet based upon changing BER per col. 11 lines 56 to 67

It would have been obvious to one of ordinary skill in the art at the time of the invention to change the size of the maximum operational packet which would be to make the second segment size different in order to adjust the size of the segment dynamically based upon changing BER.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer (U.S. Patent No.: 6,434,140) in view of Barany (U.S. Patent No.: 6,434,140).

Referring to claim 5, Meyer teaches: the apparatus of claim 4

Meyer does not expressly call for: further comprising a vocoder for generating data frames from said time sensitive information.

Barany teaches: vocoder which generates packet switched data from voice or a vocoder for generating data frames from said time sensitive information per col. 4 lines 32-39.

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the vocoder of Barany to the mobile of Meyer in order to convert voice into packet data which would be in compliance with the GPRS-136 standard.

Response to Amendment

8. Applicant's arguments filed 2/5/07 have been fully considered but they are not persuasive.

The examiner respectively disagrees with the applicant argument that the reference does not teach upon acknowledgment sending a second segment size packet which is different from the first segment size packet. The reference teaches that acknowledgement is also dependent upon BER per col. 11 lines 56 to 67. It would have been obvious to one of ordinary skill in the art at the time of the invention to change the size of the maximum operational packet which would be to make the second segment size different in order to adjust the size of the segment dynamically based upon changing BER.

The examiner also respectively disagrees with the applicant argument that the 101 rejection has been traversed. Software is not patentable because it is not a method, process, composition of matter, or article of manufacture. Computer instructions encoded on a computer readable medium that are executable by a processor that define a tangible outcome or perform a physical transformation are patentable. In order to be statutory the computer readable medium stores the instructions which are executable on a computer and the instructions perform the following steps:

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

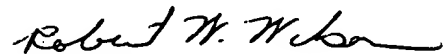
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W. Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

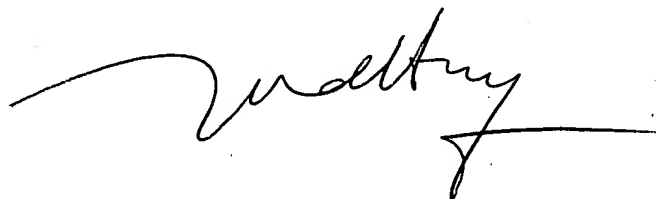
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. VU can be reached on 571/272-73155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Robert W Wilson
Examiner
Art Unit 2616

RWW
4/11/07



HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600